



IN THE CLAIMS:

Please amend Claims 1, 4, 9, 14, 18, 27, 39 and 40 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Currently amended) A method of rendering an output image on an output device at [[a]] first pixel dimensions resolution using a rendering device limited to rendering [[to a]] second pixel dimensions resolution, said second pixel dimensions resolution being smaller than lower than said first pixel dimensions resolution, said method comprising the steps of:

segmenting said output image into a plurality of bands:

segmenting each band longitudinally into a plurality of sub-areas, wherein each sub-area having pixel dimensions smaller than or equal to is capable of being rendered by said rendering device at said second pixel dimensions resolution;

rendering [[of]] each sub-area by said rendering device at pixel dimensions a resolution not more than said second pixel dimensions resolution;

combining said rendered sub-areas to form a band one or more bands of said output image; and

outputting said bands band on said output device at said first pixel dimensions resolution.

2. (Original) A method according to claim 1, wherein said rendering device has a primary function that excludes rendering to said output device.

3. (Original) A method according to claim 2, wherein said rendering device's primary function is rendering to a display device.

4. (Currently amended) A method according to claim ~~claims~~ 3, wherein said second pixel dimensions ~~resolution~~ substantially correspond ~~corresponds~~ to pixel dimensions ~~a resolution~~ of said display device.

5. (Original) A method according to claim 1, wherein said rendering step comprises the further steps of:

modifying a view transform of said output image to correspond with a corresponding sub-area;

building rendering instructions for said view transform of said output image; and
converting said rendering instructions to image data.

6. (Original) A method according to claim 5 comprising the further step of:
colour converting said image data to form raster data for outputting on said output device.

7. (Original) A method according to claim 6, wherein said output device is a printer and said raster data is interleaved with printer codes before outputting to said output device.

8. (Original) A method according to claim 1 comprising an initial step of setting a sub-area height limit, said sub-area height being limited by available storage for storing said band.

9. (Currently amended) A method of rendering an output image on a raster scanned device at [[a]] first pixel dimensions resolution, said method comprising the steps of:

segmenting said output image into a plurality of bands;

segmenting said bands longitudinally into a plurality of sub-areas, said sub-areas having [[a]] second pixel dimensions resolution and said second pixel dimensions resolution being smaller ~~lower~~ than said first pixel dimensions resolution[[,]] ~~wherein longitudinal sub-areas form bands~~;

sequentially rendering image data for said sub-areas at [[a]] second pixel dimensions resolution and by a rendering device limited to said second pixel dimensions resolution;

upon each of said sub-areas being rendered, transferring said image data to a band buffer; colour converting said image data to form raster data suitable for said raster scanned device; and

upon all sub-areas of a current band being transferred into said band buffer, transferring said raster data of said current band to said raster scanned device.

10. (Original) A method according to claim 9, wherein said rendering device has a primary function that excludes rendering to said raster scanned device.

11. (Original) A method according to claim 10, wherein said rendering device's primary function is rendering to a display device.

12. (Original) A method according to claim 9, wherein said rendering step comprises the further steps of:

modifying a view transform of said output image to correspond with a corresponding sub-area;

building rendering instructions for said view transform of said image; and

converting said rendering instructions to image data.

13. (Original) A method according to claim 12 comprising the final step of restoring said view transform.

14. (Currently amended) A method according to claim 9 [[8]], wherein said raster data is interleaved with printer codes before transfer to said raster scanned device.

15. (Original) A method according to claim 9 comprising an initial step of setting a sub-area height limit, said sub-area height being limited by said band buffer.

16. (Original) A method according to claim 9, wherein said raster data is serially transferred to said raster scanned device.

17. (Original) A method according to claim 9, wherein said colour converting step is performed concurrently with rendering of a next sub-area.

18. (Withdrawn, Currently amended) An apparatus for rendering an output image on an output device at ~~[[a]] first pixel dimensions resolution~~, said apparatus comprising:

a first processor for segmenting said output image into a plurality of bands, and segmenting said bands longitudinally into a plurality of sub-areas, each sub-area having ~~[[a]] second pixel dimensions resolution~~ and said second pixel dimensions resolution being smaller than lower than said first pixel dimensions resolution;

a second processor for rendering each sub-area at said second pixel dimensions resolution, said second processor having a pixel dimension resolution limit sufficient for rendering said second pixel dimensions resolution, but less than said first pixel dimensions resolution;

means for combining said rendered sub-areas to form ~~a band~~ one or more bands of said output image;

and

means for outputting said band on said output device at said first pixel dimensions resolution.

19. (Withdrawn) An apparatus according to claim 18, wherein said second processor has a primary function that excludes rendering for output to said output device.

20. (Withdrawn) An apparatus as claimed in claim 19, wherein said second processor's primary function is rendering to a display device.

21. (Withdrawn) An apparatus according to claim 18, wherein said sub-areas have a height limit determined by available storage for storing said band.

22. (Withdrawn) An apparatus according to claim 18 further comprising a third processor for receiving said band of said output image and controlling the transfer of said band of said output image to said output device.

23. (Withdrawn) An apparatus according to claim 18 further comprising: colour converting means for colour converting image data to form raster data for outputting on said output device.

24. (Withdrawn) An apparatus according to claim 23, wherein said output device is a printer, said apparatus further comprising means for interleaving said raster data with printer codes.

25. (Withdrawn) An apparatus according to claim 18, wherein said second processor renders said image data into a locally addressable rendering memory.

26. (Withdrawn) An apparatus according to claim 18, wherein said apparatus is a game console.

27. (Withdrawn, Currently amended) An apparatus for rendering an output image on a raster scanned device at [[a]] first pixel dimensions resolution, said apparatus comprising:

a first processor for segmenting said output image into a plurality of bands, and segmenting said bands longitudinally into a plurality of sub-areas, and generating rendering instructions for sub-areas, said sub-areas having [[a]] second pixel dimensions resolution and said second pixel dimensions resolution being smaller lower than said first pixel dimensions resolution[[,]] wherein longitudinal sub-areas form bands;

a second processor for receiving said rendering instructions from said first processor, and rendering image data for said sub-areas at said second pixel dimensions resolution, said second processor having a resolution limit sufficient for rendering said second pixel dimensions resolution, but less than said first pixel dimensions resolution;

memory means for storing sub-area image data into a band buffer; colour converting means for colour converting said image data to form raster data suitable for said raster scanned device; and

data transfer means for transferring said raster data of a current band to said raster scanned device, upon all sub-areas of said current band being transferred into said band buffer.

28. (Withdrawn) An apparatus as claimed in claim 27, wherein said second processor has a primary function that excludes rendering to said raster scanned device.

29. (Withdrawn) An apparatus as claimed in claim 28, wherein said second processor's primary function is rendering to a display device.

30. (Withdrawn) An apparatus according to claim 27, wherein said apparatus is a game console.

31. (Withdrawn) An apparatus according to claim 27, wherein said second processor renders said image data into a locally addressable rendering memory.

32. (Withdrawn) An apparatus according to claim 27, wherein said memory means is locally addressable by said first processor.

33. (Withdrawn) An apparatus according to claim 27 further comprising a third processor for receiving said raster data of said current band and controlling the transfer of said raster data to said raster scanned device.

34. (Withdrawn) An apparatus according to claim 27 wherein said first processor interleaves printer codes with said raster data, before said data transfer means transfers said interleaved raster data to said raster scanned device.

35. (Withdrawn) An apparatus according to claim 33 wherein said third processor interleaves printer codes with said raster data.

36. (Withdrawn) An apparatus according to claim 27 wherein said raster data is serially transferred to said raster scanned device.

37. (Withdrawn) An apparatus according to claim 27 wherein said colour converting means converts said image data concurrently with said second processor rendering of a next subarea.

38. (Withdrawn) An apparatus according to claim 27 wherein said sub-areas have a height limit determined by said memory means.

39. (Currently amended) A computer readable medium, having a program recorded thereon, where the program is configured to make a computer execute a procedure to render an output image on an output device at [[a]] first pixel dimensions resolution using a rendering device limited to rendering to [[a]] second pixel dimensions resolution, said second pixel dimensions resolution being smaller than ~~lower than~~ said first pixel dimensions resolution, said program comprising:

code for segmenting said output image into a plurality of bands, and segmenting said bands longitudinally into a plurality of sub-areas, ~~wherein~~ each sub-area having pixel dimensions smaller than or equal to ~~is capable of being rendered by said rendering device at said~~ second pixel dimensions resolution;

code for rendering of each sub-area by said rendering device at pixel dimensions ~~a resolution~~ not more than said second pixel dimensions resolution;

code for combining said rendered sub-areas to form ~~a band~~ one or more bands of said output image; and

code for outputting said bands ~~band~~ on said output device at said first pixel dimensions resolution.

40. (Currently amended) A computer readable medium, having a program recorded thereon, where the program is configured to make a computer execute a procedure to render an output image on a raster scanned device at ~~[[a]] first pixel dimensions resolution~~, said program comprising:

code for segmenting said output image into a plurality of bands, and segmenting said bands longitudinally into a plurality of sub-areas, said sub-areas having ~~[[a]] second pixel dimensions resolution~~ and said second pixel dimensions resolution being smaller ~~lower~~ than said first pixel dimensions resolution, ~~wherein longitudinal sub-areas form bands~~;

code for sequentially rendering image data for said sub-areas at ~~[[a]] second pixel dimensions resolution~~ and by a rendering device limited to said second pixel dimensions resolution;

code for upon each of said sub-areas being rendered, transferring said image data to a band buffer;

code for colour converting said image data to form raster data suitable for said raster scanned device; and

upon all sub-areas of a current band being transferred into said band buffer, code for transferring said raster data of said current band to said raster scanned device.